This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claims 1-44 (cancelled)

Claim 45 (new) A network address translation device for facilitating message packet communication between a first application having an internal address valid in an internal address realm and one or more applications in an external address realm, said internal address realm having available to it a set of available addresses valid for use in the external address realm, comprising :

an address translator for translating addresses included in the headers of message packets incoming to and outgoing from the internal address realm in accordance with translation rules that resolve the incompatibility of the internal and external address realms;

an address manager for establishing and storing the translation rules, said address manager having access to the set of available addresses valid for use in the external address realm; and

a control channel communicating with the address manager for receiving from the first application a service request message for establishing in response to the first application's service request a translation rule specified by the first application.

Claim 46 (new) The network address translation device of claim 45, wherein the first application specifies that the translation rule to be established associates the first application's internal address with an available external address and the first application has access to the associated available external address as data for an outgoing message packet.

Claim 47 (new) The network address translation device of claim 45 wherein the first application specifies that the translation rule to be established associates the first application's internal address with an available external address that is a particular IP address or within a specified range of IP addresses.

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Claim 48 (new) The network address translation device of claim 45 wherein the first application specifies that the translation rule is one of two or more translation rules applicable to an incoming message packet, where the selection of which translation rule is applied is contingent on address information in the incoming message packet.

Claim 49 (new) The network address translation device of claim 46 wherein the available external address requested by the first application is a terminating address.

Claim 50 (new) The network address translation device of claim 46 wherein the available external address requested by the first application is an originating address.

Claim 51 (new) The network address translation device of claim 46 wherein the internal address realm is a private network and the external address realm is the Internet.

Claim 52 (new) The network address translation device of claim 8 wherein the internal address realm is a private network and the external address realm is the Internet and the address manager establishes a translation rule by associating an address valid in the private network realm with an address valid in the Internet.

Claim 53 (new) The network address translation device of claim 48, wherein the selection of which translation rule is applied is made in response to the presence or absence of specified originating address information in the incoming message.

Claim 54 (new) The network address translation device of claim 45, wherein the communication facilitated is peer-to-peer application communication.

Claim 55 (new)   The network address translation device of claim 45, wherein the communication facilitated is peer-to-peer telephony communication.

Claim 56 (new) The network address translation device of claim 47, wherein the translation rule to be established forces the outgoing message packet to have a destination address in a transit network.

Claim 57 (new) The network address translation device of claim 47, wherein the translation rule to be established forces at least a portion of the packet communication between the first application and the second application to pass through a specified network.

Claim 58 (new) A method for facilitating message packet communication between a first application having an internal address valid in an internal address realm and one or more applications in an external address realm, said internal address realm having available to it a set of addresses valid for use in the external address realm, comprising :

    providing the internal address realm with a network address translation device having an address translator for translating addresses included in the headers of message packets incoming to and outgoing from the internal address realm in accordance with translation rules that resolve the incompatibility of the internal and external address realms;

    providing an address manager for establishing and storing the translation rules, said address manager having access to the set of available addresses valid for use in the external address realm; and

    providing a control channel communicating with the address manager for receiving from the first application a service request message for establishing in response to the first application's service request a translation rule specified by the first application.

Claim 59 (new) The method of claim 58, wherein the step of providing a control channel comprises receiving from the first application a request that specifies that the translation rule to be established associates the first application's internal address with an available external address and providing the first application access to the associated available external address as data for an outgoing message packet.

Claim 60 (new) The method of claim 58 wherein the step of providing a control channel for receiving a request comprises receiving from the first application a request that specifies that the translation rule to be established associates the first application's internal address with an available external address that is a particular IP address or within a specified range of IP addresses.

Claim 61 (new) The method of claim 58 wherein the step of providing a control channel for receiving a request comprises receiving from the first application a request that the translation rule is one of two or more translation rules applicable to an incoming message packet, where the selection of which translation rule is applied is contingent on address information in the incoming message packet.

Claim 62 (new) The method of claim 58 wherein the step of providing a control channel for receiving a request comprises receiving from the first application a request for a translation rule for a terminating address.

Claim 63 (new) The method of claim 58 wherein the step of providing a control channel for receiving a request comprises receiving from the first application a request for a translation rule for an originating address.

Claim 64 (new) The method of claim 58 wherein the internal address realm is a private network and the step of providing an address manager comprises providing an address manager having access to a set of available addresses valid in the Internet.

Claim 65 (new) The method of claim 58 wherein the internal address realm is a private network and the external address realm is the Internet and the step of providing an address manager comprises providing an address manager that establishes a translation rule by associating an address valid in the private network realm with an address valid in the Internet.

Claim 66 (new) The method of claim 61, wherein step of providing a control channel for receiving a request comprises receiving from the first application a request that the translation rule is one of two or more translation rules applicable to an incoming message, where the selection of which translation rule is applied is made in response to the presence or absence of specified originating address information in the incoming message.

Claim 67 (new) The method of claim 58, wherein the communication facilitated is peer-to-peer application communication.

Claim 68 (new) The method of claim 58, wherein the communication facilitated is peer-to-peer telephony communication.

Claim 69 (new) The method of claim 60, wherein the step of providing a control channel for receiving a request comprises receiving from the first application a request that the translation rule to be established forces the outgoing message packet to have a destination address in a transit network.

Claim 70 (new) The method of claim 60, wherein step of providing a control channel for receiving a request comprises receiving from the first application a request that the translation rule to be established forces at least a portion of the packet communication between the first application and the second application to pass through a specified network.